

REMARKS

Claims 11-28 are pending in the application. Claims 11-28 are rejected. Claims 25 and 26 are each being amended to correct an informality of improper claim dependency.

Claims 11-12, 15, 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinichiro Iwata (GB#2345213 A Date of A Publication 28.06.2000) in view of Tran (Patent Number: 5,392,276)). The rejection is respectfully traversed.

It is submitted that the subject matter of those claims was not obvious at the time the invention was made to a person having ordinary skill in the art. More in particular, it is submitted that one with ordinary skill in the art would not have combined the teaching of **Tran '276** into the system of Shinichiro Iwata '213 at the time the invention was made. Furthermore, the combination of Tran '276 and Shinichiro Iwata '213 does not teach each and every feature cited in the claims on file.

The combination of Tran '276 and Shinichiro Iwata '213 does not teach each and every feature cited in the claims on file. More in particular, neither Tran '276 nor Shinichiro Iwata '213 disclose a feature corresponding to:

“detecting local conversational activity at each of said terminals respectively, sending conversational activity signals indicative of the local conversational activity condition from each of said terminals to the other terminal;

controlling said reception and transmission means to communicate by half-duplex transmission of said conversational data packets in response to conversational activity at a first one of said terminals but not at the second one of said terminals; and

*at least partially deactivating said reception means at said first terminal and said transmission means at said second terminal during said half-duplex transmission so as to reduce their power consumption”, as cited in **Claim 11 of the present application.***

As described on page 5 of the present application, during conversational communication, after at most a short period of full duplex, there is usually a period of unidirectional communication during which it is possible to deactivate the receiver at the transmitting station and deactivate the transmitter at the receiving station.

Neither Shinichiro Iwata '213 nor Tran '276 suggests that it would be possible, let alone desirable, to switch between full-duplex and half duplex transmissions in response to signals indicative of the local conversational activity condition at each of the terminals as claimed in claim 11. Shinichiro Iwata '213 only describes half-duplex transmission and Tran '276 only describes full-duplex transmission. Neither discloses detecting conversational activity.

Shinichiro Iwata '213 does not disclose sending conversational activity signals indicative of the local conversational activity condition from each of the terminals to the other terminal, as required by claim 11. In the half-duplex communication of Shinichiro Iwata '213, as described at page 8 lines 11-18, the communication stations alternate between an operation state getting the right to send called the send phase and an operation state losing the same called the receive phase. The time period during which the right to send can be held at one station is determined by both sides prior to communication. The P/F (poll/final) bit, which is sent by the transmitting phase station only, not by both stations as required by claim 11, is used to exchange the right to send between the stations A and B to perform the power-down set/reset control at both stations. The P/F bit is not a function of the local conversational activity condition, as required by claim 11. The power-down control only concerns the receiver module, contrary to the requirement of claim 11 to deactivate the transmission means at the second (receiving) terminal – even in the receive phase, in Shinichiro Iwata '213 no signal is transmitted but the transmitter module is not stated to be deactivated even partially (page 2 lines 2-8 & page 11 lines 5-14).

Thus, the combination of Tran '276 and Shinichiro Iwata '213 does not, and in fact cannot, teach each and every feature cited in the claims on file. Accordingly, the subject matter of those claims was not obvious at the time the invention was made to a person having ordinary skill in the art.

Furthermore, one of skill in the art would not combine the teachings of Tran '276 and Shinichiro Iwata '213.

Shinichiro Iwata '213 relates to data communication using Infrared (IR) communication technology in the field of a portable information device such as a mobile PC (personal computer) or a PDA (personal digital assistant). Specifically, Shinichiro

Iwata uses the bidirectional IrDA (Infrared Data Association) protocol based on half-duplex operation because full-duplex operation must split the bandwidth between two directions, which is difficult for IR communication. (Page 1 lines 5-15).

As the Examiner acknowledged already, Shinichiro Iwata '213 does not disclose, as cited in **Claim 11 of the present application**:

“A method of communication of conversational data signals between terminals over a radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair of time slots, said communication comprising time periods each comprising a set of said pairs of time slots, and said terminals comprising respective reception and transmission means for use in processing said conversational data packets respectively received at and transmitted from the corresponding terminal.”

The Office Action states that it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of **Tran '276** into the system of Shinichiro Iwata '213. It is respectfully observed that is not the case. As stated in the Office Action: “Tran '276 recites at col. 1, lines 55-60 that: “what is needed is a mechanism for better utilizing the available resources in an environment where a party connected internal to a network is communicating with a party external to the network”.

The cited paragraph of **Tran '276** incites one with ordinary skill in the art to look for a way to improve the utilization of available resources in an environment where a party connected internal to a network is communicating with a party external to the network only Shinichiro Iwata '213 is limited to infra-red (therefore direct line-of-sight) communication between just two stations and therefore relates to a completely different environment than one where a party connected internal to a network is communicating to a party external to a network.

Thus, it is respectfully submitted that this motivation would not lead one with ordinary skill in the art to combine the teaching of **Tran '276** into the system of Shinichiro Iwata '213. Accordingly, the subject matter of those claims was not obvious at the time the invention was made to a person having ordinary skill in the art.

Moreover, it is observed that the teaching of Tran '276 is incompatible with the teaching of Shinichiro Iwata '213. Tran '276 discloses only full-duplex transmission, and the teaching of Tran applies to greater usage of available time slots in full-duplex transmission, not power saving during half-duplex as in Shinichiro Iwata '213. Greater usage of available time slots in full-duplex transmission is incompatible to the objective of Shinichiro Iwata '213 of powering down a receiver module, since in full-duplex transmission it is not possible to power down the receiver module.

The Examiner's attention is drawn in this respect to the passages at col. 2 lines 1-6 of Tran '276:

“a method for allocating time slots of frames for full duplex time division multiplex communication includes dynamically differentiating between those calls which are between nodes within the internal network from those calls which are between nodes on the internal network and a node connected through a trunk”; as well as lines 21-34 of Tran '276:

“if the calling or called party is coupled to the interface from the trunk, causing the corresponding time slots on the receive r.f. channel to be used for transmitting information from the trunk-connected external node to the internal node on the network so that the trunk transmits within the multiplexer on the claimed time slot of the upstream channel backplane and receives in the corresponding time slot on the downstream channel backplane, whereas the call-connected internal node transfers packets in the same time slot on the transmit r.f portion of the internal network and listens on the same time slot in the receive portion of the internal r.f network”.

Thus, as the teaching of Tran '276 is incompatible with the teaching of Shinichiro Iwata '213, one with ordinary skill in the art would not have combined the teaching of **Tran '276** into the system of Shinichiro Iwata '213. Accordingly, the subject matter of those claims was not obvious at the time the invention was made to a person having ordinary skill in the art.

Accordingly, it is submitted that claim 11 is novel and non-obvious in view of the prior art cited and is allowable.

For at least the reasons set forth above with respect to claim 11, Tran '276 and Shinichiro Iwata '213 do not disclose or suggest a control means responsive to conversational activity occurring at a first one of said terminals and not occurring at the second one of said terminals for controlling said reception and transmission means to communicate by half-duplex transmission of said conversational data packets and for at least partially deactivating during said half-duplex transmission either said reception means in the absence of remote conversational activity or said transmission means in the absence of local conversational activity so as to reduce power consumption, all as recited in independent claim 24. Accordingly, claim 24 is allowable over Tran '276 and Shinichiro Iwata '213.

In addition, claim 20 requires that "at least a first one of said terminals communicates with a third terminal over a further communication link". It is respectfully submitted that Shinichiro Iwata '213 does not disclose communication with a third terminal as the Examiner maintains, let alone "said first terminal signalling a conversational activity signal indicative of conversational activity generated at said third terminal" as also required by claim 20.

Moreover, regarding claim 23, it is respectfully submitted that Tran '276 does not disclose communication over a cellular telephone link as the Examiner maintains, but "communication link management between calls within a controlled network which allocates calls by time division multiplexing of time slots and calls coupled to the 15 network through the network interface unit through a trunk external to the network." (col. 1 lines 13-17).

The dependent claims depend from the independent claims at least for this reason.

Although Applicants may disagree with statements made by the Examiner in reference to the claims and the cited references, Applicants are not discussing all these statements in the current Office Action since reasons for the patentability of each pending claim are provided without addressing these statements. Therefore, Applicants reserve the right to address these statements at a later time if necessary.

No amendment made herein is related to the statutory requirements of patentability unless expressly stated herein. Further, no amendment herein is made for

the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account 503079.

Respectfully submitted,

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